

Atty. Dkt. No. 99CR065/KE

Please amend claims 1, 6, 8, 12, 15-16 and 18-19 as follows.

- 1 1. (Currently Amended) A method for repairing defects in a normally white liquid
2 crystal display, the method comprising:
3 applying power to the liquid crystal display;
4 backlighting the liquid crystal display while power is applied;
5 locating a defective pixel in the liquid crystal display while power is applied;
6 focusing a laser on a portion of a color filter corresponding to the defective
7 pixel; and
8 at least partially ablating the portion of the color filter corresponding to the
9 defective pixel using the laser to discolor the color filter without damaging a glass substrate
10 associated with the color filter.
- 1 2. (Original) The method of claim 1, wherein the step of locating further
2 comprises locating electrically open pixels while applying power to the normally white liquid
3 crystal display.
- 1 3. (Original) The method of claim 2, wherein the locating step comprises
2 using a color vision system to locate the defective pixel.
- 1 4. (Original) The method of claim 1, wherein the step of ablating comprises
2 using a controller to control the laser to ablate the portion of the color filter.
- 1 5. (Original) The method of claim 1, wherein the step of focusing further
2 comprises focusing a laser having a wavelength in the visible range.
- 1 6. (Currently Amended) The method of claim 1, wherein the step of ablating
2 further comprises darkening the portion of the color filter corresponding to the defective
3 pixel, wherein the level of discoloration is set according to an original color of the defective
4 pixel.
- 1 7. (Original) The method of claim 1, wherein the steps of locating, focusing
2 and ablating are repeated for a plurality of defects on the liquid crystal display.

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1 8. (Currently Amended) An apparatus for repairing defects in a normally white
2 liquid crystal display (LCD), the apparatus comprising:
3 a backlight adapted to illuminate the LCD;
4 a power source adapted to provide power to the LCD such that non-defective
5 pixels will block transmission of light through the LCD;
6 a vision system adapted to locate defective pixels while power is applied to
7 the LCD;
8 a laser providing a laser light output;
9 a motion control system coupled to the laser and adapted to control motion of
10 the laser; and
11 a controller adapted to control the laser to ablate a portion of the color filter
12 corresponding to a location of each defective pixel of the defective pixels, wherein the color
13 filter is discolored at the location of each defective pixel.

1 9. (Original) The apparatus of claim 8, wherein the laser has a wavelength
2 in the visible range.

1 10. (Original) The apparatus of claim 8, wherein the vision system includes a
2 camera equipped with automatic focus and automatic zoom that scans the LCD.

1 11. (Original) The apparatus of claim 8, wherein the laser includes a mask to
2 block laser light from ablating portions of the color filter associated with non-defective pixels.

1 12. (Currently Amended) An apparatus for repairing defects in a normally white
2 liquid crystal display (LCD), the apparatus comprising:
3 pixel defect location means for identifying a location of a defective pixel; and
4 ablation means for ablating a portion of a color filter corresponding to the
5 location of the defective pixel, the ablation means discoloring the color filter at the location.

1 13. (Previously Added) The apparatus of claim 12, wherein the means for
2 locating uses electrically open pixels while applying power to the normally white liquid crystal
3 display (LCD).

1 14. (Previously Added) The apparatus of claim 13, wherein the means for
2 locating uses a color vision system to locate the defective pixel.

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1 15. (Currently Amended) The apparatus of claim 12, wherein the ablation means
2 ~~uses a controller to control a laser to ablate the portion of the color filter~~ discolors the color
3 filter at a different level for the color type of the defective pixel.

1 16. (Currently Amended) The apparatus of claim 12, wherein the ablation means
2 ~~includes a laser having a wavelength in the visible range~~ only discolors a filter substrate side
3 of the color filter.

1 17. (Previously Added) The apparatus of claim 12, the ablation means darkens
2 the portion of the color filter corresponding to the defective pixel.

1 18. (Currently Amended) The apparatus of claim ~~42~~ 16, wherein the color filter is
2 provided on a filter substrate, the filter substrate being closer to the ablation means than a
3 TFT substrate of the LCD.

1 19. (Currently Amended) The apparatus of claim 12, wherein the ablation means
2 ~~uses light having a wavelength in the visible range~~ does not damage a substrate of the color
3 filter.

1 20. (Previously Added) The apparatus of claim 12, wherein the pixel defect
2 location means includes a camera equipped with automatic focus and automatic zoom that
3 scans the LCD.